Remarks/Arguments

Claims 1-9 are pending. Claim 1 has been amended to more clearly and distinctly claim the subject matter that applicants regard as their invention. No new matter is believed to be added by the present amendment.

Rejection of claims 1-7 under 35 USC 102(b) as being anticipated by Strecker et al. (US Pat No 4777595)

Applicants submit that for the reasons discussed below, and in applicants' previous response filed September 27, 2004, present claim 1, and claims 2-7, which depend therefrom, are not anticipated by Strecker.

Present claim 1 recites:

"   1. (Currently amended) Method for transmitting data in a home communication network comprising a first device and a second device, wherein said first device includes means to produce a data packet and said second device includes means to use said data packet, said method comprising the steps of:

' - opening a connection between said first device and said second device;

' - having said second device allocate a message buffer to said connection, said second device communicating the message buffer size to said first device;

' - having said first device transmit said data packet to said second device, wherein said data packet is split and sent as payload in messages, where the **size of the payloads of each message is smaller or equal to said message buffer size.**" (emphasis added)

As discussed previously, applicants submit that Strecker does not disclose of suggest that the payload size is smaller or equal to the buffer size in the receiver.

Strecker et al. discloses a network in which three types of communication mechanisms are supported: a datagram service, a message service and a block data transfer service (col. 7, lines 29-37). A datagram or message appears to be

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transmitted in a single packet (see col. 5, lines 10 to 12 and col. 7, lines 30 to 33), while a data block is split over several packets (see col. 5, lines 10 to 12).

The network described in Figure 1 of Strecker et al. comprises three devices (12, 14 and 16). Each of these devices comprises a bus interface also called port (26A, 26B, 26C respectively), as well as buffer memory (24A, 24B, 24C respectively).

Figure 3 shows the bus interface in more detail. In particular, each interface comprises a packet buffer 34 (also called port buffer at col. 1, line 61), which is used to hold, among other data, the payload of a packet, called 'body' with reference to figure 2 (see col. 7 lines 18 to 25 in association with reference 38 of figure 2 for a list of all items stored in the packet buffer). The packet buffer is involved in the transmission or reception of single packets, whether the payload concerns a datagram, a message or a data block.

In the Response to Arguments, the Examiner argues that, "In the system of Strecker, if the message buffer size were smaller than the size of the packets, the data transfer would not be complete ... It is inherently implied that the buffers would be big enough to handle a packet sending the maximum payload." Applicants respectfully disagrees and submits that Strecker explicitly states to the contrary.

Regarding the packet buffer 34, the paragraph at col. 8 lines 23 to 29 states:

> "It is not imperative that the buffers be large enough to hold full packets statically. For example, the buffer might actually be a small first-in first-out (FIFO) stack. If an implementation does not fully buffer packets, though, it must be highly likely that the data can be accepted for the entire packet at the bit transfer rate of the bus."

Strecker explicitly states that it is not required that the size of a payload of a message sent by a first device be smaller or equal in size to a message buffer size of a second device, to which the message is to be sent. Contrary to the assertion in the Office Action, the packet buffer may be smaller than the payload packet. Reference is also made to col. 10, lines 12 to 14, which describes a case where a packet is correctly received but incorrectly buffered. In view of the above,

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Applicants submit that the Response to Arguments is not supported by the teachings of Strecker.

Strecker et al. mentions that, for example, with respect to the message service, the 'maximum size message that may be exchanged between ports is determined by prior agreement and at a higher level protocol' (see col. 12, lines 49 to 52, cited by the Examiner). However, there is no teaching or suggestion in Stecker that this negotiation has anything to do with the packet buffer size. The limitations with regard to the maximum size of a message may very well be situated elsewhere in the devices and linked to other parameters than the packet buffer size. The fact that this agreement is to be achieved by 'higher level protocols' also seems to indicate that the agreement has no influence on a port's packet buffer management. Lastly, no buffer allocation is made at the connection level.

Since the embodiment described by Strecker does not appear to teach that the packet buffer is a queue whose size is variable (and as shown above may be smaller than that of a packet), applicants submit that at least the following highlighted limitations of claim 1 are not disclosed by Strecker:

"-having said second device <u>allocate a message buffer to said connection</u>, said second device <u>communicating the message buffer size</u> to said first device;

' -having said first device transmit said data packet to said second device, wherein said data packet is split and sent as payload in messages, <u>where the size of the payload of each message is smaller or equal to said message buffer size</u>."

Applicants also note that as far as the terminology is concerned, the term 'packet' in Strecker et al. refers to individual packets sent between two devices, while the term 'message' is used for this purpose in the present application, and the term 'packets' is used in to designate the entire set of data to be transmitted over several messages.

Regarding the second type of buffers, the buffer memories (24A, 24B, 24C respectively), applicants would like to direct the examiner's attention to col. 6, lines 42 to 44. This paragraph mentions that 'Memories 24A, 24B and 24C contain

memory buffers between which the exchanges described herein take place'. Also, col. 4 lines 16 to 24 (recited in the Office Action) mention read operations from, and col. 4 lines 56 to 66 mentions read operations to, a buffer memory. For a write operation, 'an appropriate number of [...] packets [are put] onto the communications bus, each containing a part of the data [to be written] and labelled with the name of the destination (i.e. receiving) buffer'. For a read operation, the 'data is returned in as many packets as necessary by the [...] responding [...] port', following a request containing identification of the source and destination buffers. In other words, a buffer in the buffer memory contains a data block to be transferred over several packets. It follows that the size of such a buffer has <u>no</u> relationship whatsoever with the payload size of an individual packet.

While Strecker teaches that the length of the buffers in the buffer memories may be transmitted in one form or another at one point of the process (see col. 4, lines 9 to 15 cited by the Examiner), this buffer size is independent of the maximum payload size of the individual packets. Applicants submit that there is no teaching or suggestion that allows one to draw a parallel between that exchange of information, and the claimed communication of the receiver's message buffer size to transmitter.

Consequently, Applicants respectfully submit that Strecker fails to disclose or suggest at least the following underlined portions of claim 1.

- having said second device <u>allocate a message buffer to said connection, said second device communicating the message buffer size to said first device</u>;

- having said first device transmit said data packet to said second device, wherein said data packet is split and sent as payload in messages, <u>where the size of the payload of each message is smaller or equal to said message buffer size.</u>"

Finally, applicants have amended claim 1 to more clearly point out the above-mentioned differences with the teachings of Strecker. In particular, the term

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'payload' refers to '... the payload of each individual message,' and not to an entire data packet which is split into as many message payloads as necessary.

In view of the above, applicants submit that Strecker fails to teach or disclose all of the limitations of claim 1, and as such, claim 1, and the claims that depend therefrom, are not anticipated by Strecker.

Rejection of claim 8 under 35 USC 103(a) as being unpatentable over Strecker et al. (US Pat No 4777595) in view of Muller.

Muller is cited as teaching dynamically allocatable buffers. However, even if Muller provides such teaching, Muller fails to cure the defect of Strecker as applied to claim 1. Thus, applicants submit that claim 8, which depends from claim 1, is patentably distinguishable over Strecker and Muller for at least the same reasons as those discussed above.

New claim 9 also is directed to a method for transmitting data in a home communication network and includes the step of: "... having said first device transmit said data packet to said second device, wherein said data packet is split and sent as payload in messages, where the size of the payload of each message is smaller or equal to said message buffer size." Applicants submit that new claim 9 is patentable over the cited prior art for at least the same reasons as those applicable to claim 1.

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at (609) 734-6815, so that a mutually convenient date and time for a telephonic interview may be scheduled.

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Respectfully submitted,

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I hereby certify that this amendment is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Mail Stop AF, Commissioner for Patents, Alexandria, Virginia 22313-1450 on:

July 12, 2005
Date

Patricia M. Fedorowycz